SEPARATOR FOR STAINLESS STEEL LOW-TEMPERATURE TYPE FUEL CELL AND MANUFACTURE THEREOF

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Abstract of **JP 2000323152 (A)**

PROBLEM TO BE SOLVED: To provide separator for low-temperature type fuel cell having improved corrosion resistance and electrical conductivity by dispersing the carbon grains for adhesion to a stainless steel base material formed with a thin and fine passive state film. SOLUTION: This separator uses stainless steel for the base material S thereof, and a surface of the base material is formed with a passive state film F by the passive state treatment after the acid cleaning. Diffusion heating treatment is performed to the carbon grains G dispersed for adhesion to the passive state film F so as to form a carbon diffusion layer D between the base material S. Acid cleaning with fluoric-nitric acid bathing is performed to the stainless steel plate for passive state treatment with the nitric acid bathing, and the stainless steel plate, in which the carbon grains are dispersed for adhesion, is heated for diffusion so as to form a carbon diffusion layer between the carbon grains and the stainless steel base material. The carbon grains can be dispersed for adhesion to the stainless steel plate in any process before the acid cleaning, before or after the passive state treatment.